

ABSTRACT

The present invention includes a fuel distributor for a fuel nozzle in a gas turbine engine comprising an inner tubular body and an outer tubular body respectively having an outer body inner surface and an inner body outer surface adapted to be in sealing contact one with the other, at least two helical fuel channels defined in at least one of the inner and outer surfaces and being in fluid communication with a fuel inlet, and a channel exit port for each helical fuel channel. The present invention also includes a method of distributing fuel in a fuel nozzle comprising the steps of providing at least two helical channels in the fuel nozzle, each having a channel exit port, providing a fuel inlet cavity in fluid communication with the helical channels, and flowing fuel in the fuel inlet cavity, the helical channels and the channel exit ports.